

Fig. 1

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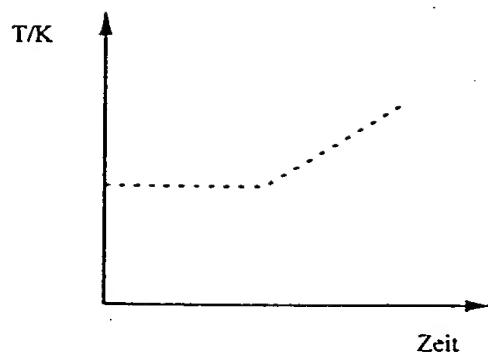


Fig. 2

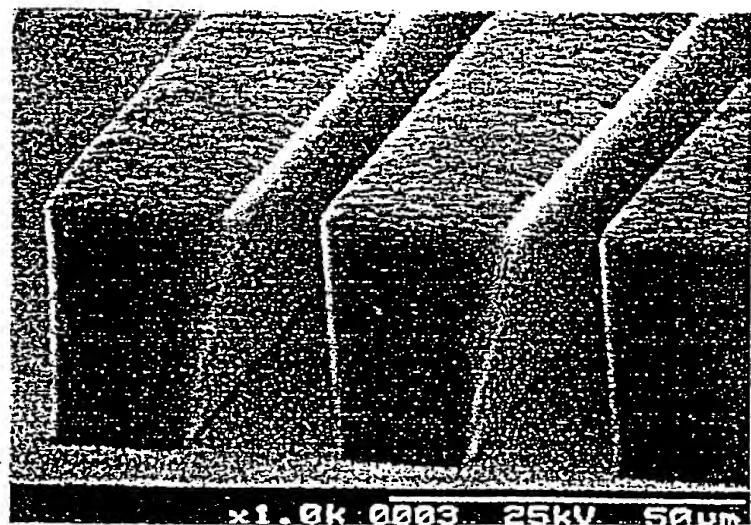
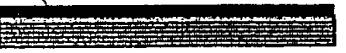
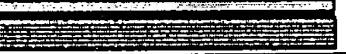
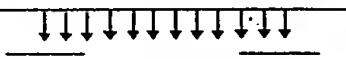


Fig. 4

Fig. 3a

No.	Description of Process	Process Layer	Description
1	Application (sputtering) of an adhesive layer for the galvanic starter layer	Silicon nitride (SiN) 80nm Si wafer	
2	Application (sputtering) of a galvanic starter layer	Gold 100 nm	
3	Centrifuged application of photo resist material Apparatus: Suess company, model RC-8 15s 300 rpm 5s 400 rpm photo resist: company of mrt, type V100	Photo resist 55 μ m	
4	IR drying: 900 s at 67 % of the maximum power		
5	Exposure to IR radiation: Apparatus: Suess company, model Ma 56 Contact exposure unit 2210s at 18 mJ/cm ²		 
6	Development: Developer: mrt company, type ma D 330 Exposure period: 10 min		

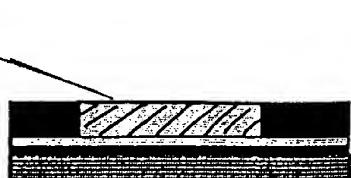
7	Galvanic deposition of nickel Bath type: nickel sulfamate of the Blasberg company Duration: 2.5 hours Current: 10mA/cm ²	Nickel 50 µm	
8	Photo resist removal with acetone		
9	Removal of the galvanic starter layer (gold) in a sputter etching process (ion milling) duration: 180 s	Photo resist 55 µm	
10	Detachment of the micro springs by selective removal of the adhesive layer (SiN), using 5 % hydrofluoric acid (HF)		

Fig. 3b

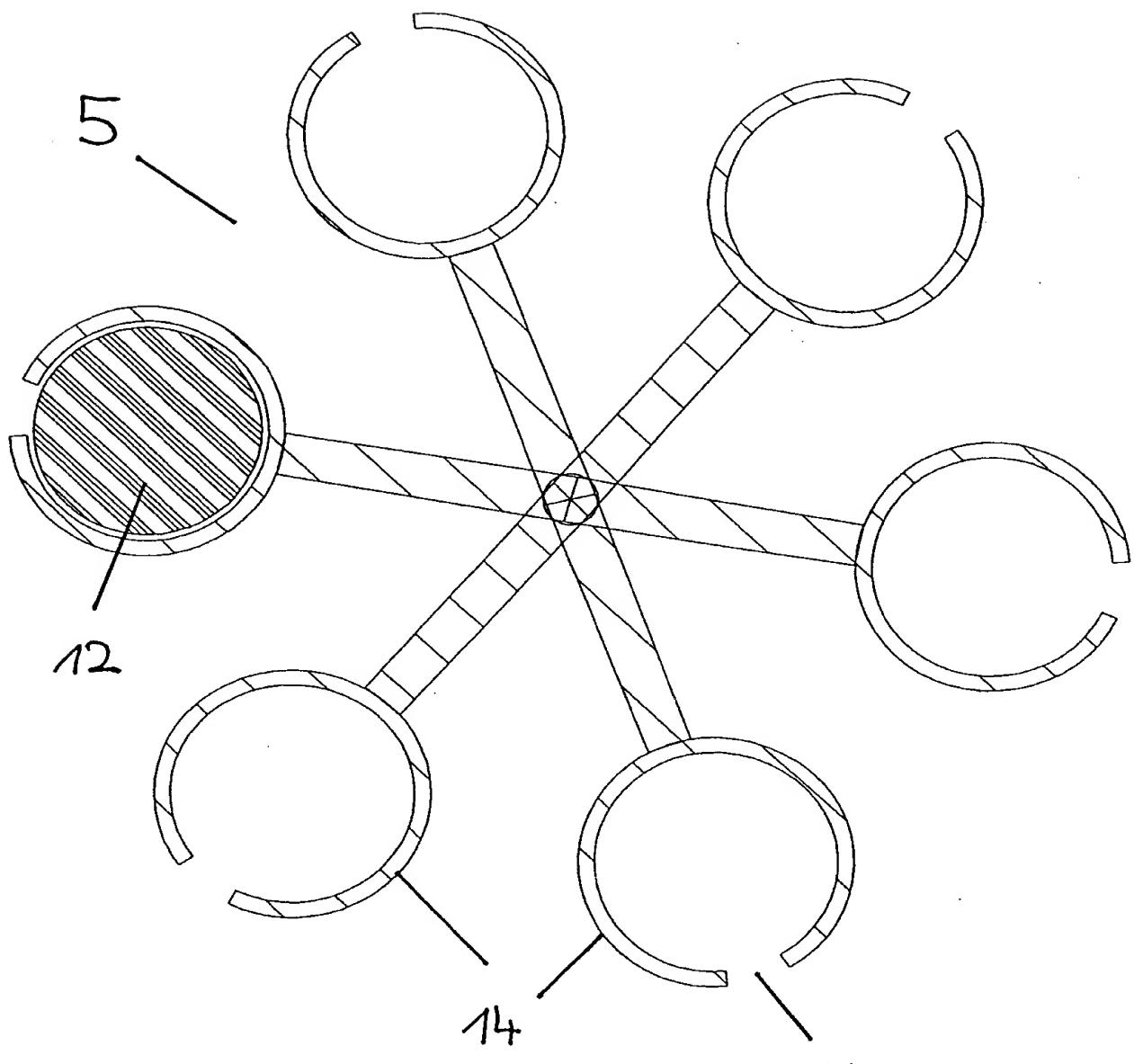


Fig. 5a

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Fig. 5b

